



Resource Management (RM) Contracting at Bridgewater State University Bridgewater, Massachusetts

Summary

2006 Recycling:
102.2 tons

2010 Recycling:
118 tons

**2006
Solid Waste:**
650 tons

**2010
Solid Waste:**
487 tons

**Cost Savings
Solid Waste
(2006 vs. 2010)**
\$17,708.84

**Total Recycling
Rebates
(2008-10)**
\$8,501.54

**Increase in
Cardboard
Recycling
(2006 vs. 2010)**
19.30 tons

*construction
and dining
services figures
not included

Description of Project

Bridgewater State University (BSU) is a public institution with an enrollment of approximately 11,000 students. The campus is home to 40 buildings situated on 275 acres in Bridgewater, Massachusetts. BSU has 960 full-time employees and generates approximately 875 tons of waste per year.

In the winter of 2007, BSU collaborated with the Massachusetts Department of Environmental Protection (MassDEP), to develop a Resource Management Request for Proposals (RFP) to find a waste hauler to help BSU optimize its solid waste and recycling services on campus.

What is Resource Management?

Resource Management (RM) is a new way of looking at an old problem. Its premise is that businesses, institutions and municipalities can reduce waste, increase recycling and lower disposal costs by providing their solid waste contractors with clear financial incentives for managing resources in economically and environmentally responsible ways.

Waste Management Before RM

BSU did not receive a revenue share for recycled materials. Its recycling program included mixed office paper, cardboard, food and beverage containers (plastic, glass, steel, aluminum) and universal wastes (fluorescents, ballasts, batteries) across all administrative and classroom buildings. Twelve student workers managed the process of material collection, consolidation, and pickup. The recycling rate in 2006 was estimated at 14 percent. However, reporting was inconsistent, particularly for areas like dining services and construction recycling and BSU was unable to identify areas in which they could improve material capture and cost-savings. With these inconsistencies in mind and a desire to improve paper and plastic recycling on campus BSU identified several focus areas for an RM contract, including:

- Improved reporting and record-keeping
- More efficient paper collection; more types of paper accepted
- Expansion of paper collection to dormitories
- More efficient, expanded capture of containers

BSU held a pre-bid meeting for prospective haulers in April 2007 and awarded the RM contract to Frade's Disposal, the school's longtime hauler. Frade's immediately began to collect baseline data that would set a standard for improvements in reporting and collection strategies.

Waste Management After RM

Although Frade's did not conduct a waste audit, the RM contract compelled Frade's to be "more accountable," said Mary Cahill, BSU's Recycling Coordinator. Frade's assigned an account manager to work directly with Mary to file reports and schedule pickups. BSU received waste and recycling reports

more inclusive of all campus services (such as dining and construction) with greater frequency. This transparency in reporting practices allowed the school to target areas in need of improvement and capture the necessary data to show progress.

BSU sought upgrades to facilities and equipment through the RM contract. A cart dumper was installed at the school's recycling site at the outset of the new school year. A grant through the Student Government Association and Facilities Management allowed the school to purchase 180 96-gallon bins, which Frade's helped to purchase at half the anticipated cost. Frade's and the school's dining service provider (Sodexho) also worked together to improve efficiencies and increase cardboard capture.

Prior to the RM contract, Sodexho had another vendor pick up waste, while BSU student staff picked up the recycling. Now Frade's performs both services, allowing student staff to allocate their resources elsewhere, such as servicing 96-gallon bins or driving light bulb and battery collection initiatives. Frade's also redesigned the waste and recycling infrastructure for dining services, adding a cardboard compactor to East Commons which reduced the number of trips to haul paper from twice a week to once a month.

Impact of RM Program

RM has yielded significant gains in its first three years of implementation. Frade's delivers more services, including more transparent reporting, and has upgraded equipment to existing facilities. More materials are being recycled while overall costs are down. In 2010, reduced waste, improved recycling and greater pickup efficiency resulted in nearly \$18,000 in solid waste-related savings compared to 2006 figures and a total of approximately \$8,500 in recycled material revenue has been returned to the school over the last three years.

BSU has seen marked improvement in collection of targeted materials. A major focus was placed on paper recycling and the school captured 69.2 tons (including magazines and newspapers) in 2008; an over 50 percent increase in recovery (23.5 tons) over the previous two years. These numbers have remained high in 2009 and 2010.

Paper Recycled at BSU, 2006 - 2010

Year	Tons
2006	44.1
2007	47.3
2008	69.2
2009	65.4
2010	63.4

This increase is attributed to equipment upgrades (the new cart dumper and compactor), more complete reporting, expanded recycling in dormitories, and overall awareness on campus. This has been particularly valuable during a period of growth at BSU. While the campus infrastructure and student body has expanded, the RM contract has allowed staff to monitor existing efforts and introduce new services in an efficient, cost-effective manner.

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For instance:

- In 2007, the university opened the Crimson dormitory and dining facility, a “green dorm” with recycling bins in every room.
- The Office of Sustainability at BSU is spreading the message through R.A. training and working with incoming freshmen.

Additionally, BSU worked on container recycling as a 2007 Leading by Example (LBE) Pilot Project with the Executive Office of Energy and Environmental Affairs; LBE allowed the school to add four multiport recycling stations to increase bottle, can, and paper recycling in dining areas.

Approximately 370 tons of waste emerges from campus kitchens during the school year, with food waste accounting for up to 60% of that total. With an increased focus on organics in 2009, BSU was awarded another Leading by Example Pilot Project to purchase and install a self-contained food waste elimination system.

Reflective of BSU’s efforts and the benefits of RM on campus, the school earned the distinction of placing 14th out of 95 schools nationally, and first in Massachusetts in the 2008 Recyclemania competition’s “Waste Minimization” category.

Keys to Success

- More transparent reporting allows for program evaluation and change
- Reduced costs for waste hauling by increasing the recycling rate, reducing the number of pickups, and eliminating redundancies
- Efficiencies allow for staff to focus on new recycling initiatives
- Increased revenue from recycled materials provides incentives for both the hauler and BSU to increase the recycling rate
- Increased awareness and commitment on campus breeds success

Contacts

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Additional Internet Resources

- **U.S. Environmental Protection Agency (EPA) WasteWise Program**
<http://www.epa.gov/wastewise/wrr/rm.htm>
- **Bridgewater State University Recycling**
<http://www.bridgew.edu/recycling>
- **Recyclemania**
www.recyclemania.org

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